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THE **pulse**

ONTARIO ASSOCIATION OF NATUROPATHIC DOCTORS

**DISCOVERING
ST. FRANCIS
HERB FARM**

**INTERPROFESSIONAL
SPOTLIGHT:
RHN MORGAN KNULL**

**AGNI:
HARNESSING
THE FIRES OF
METABOLISM**

CYCLE CHARTING 101





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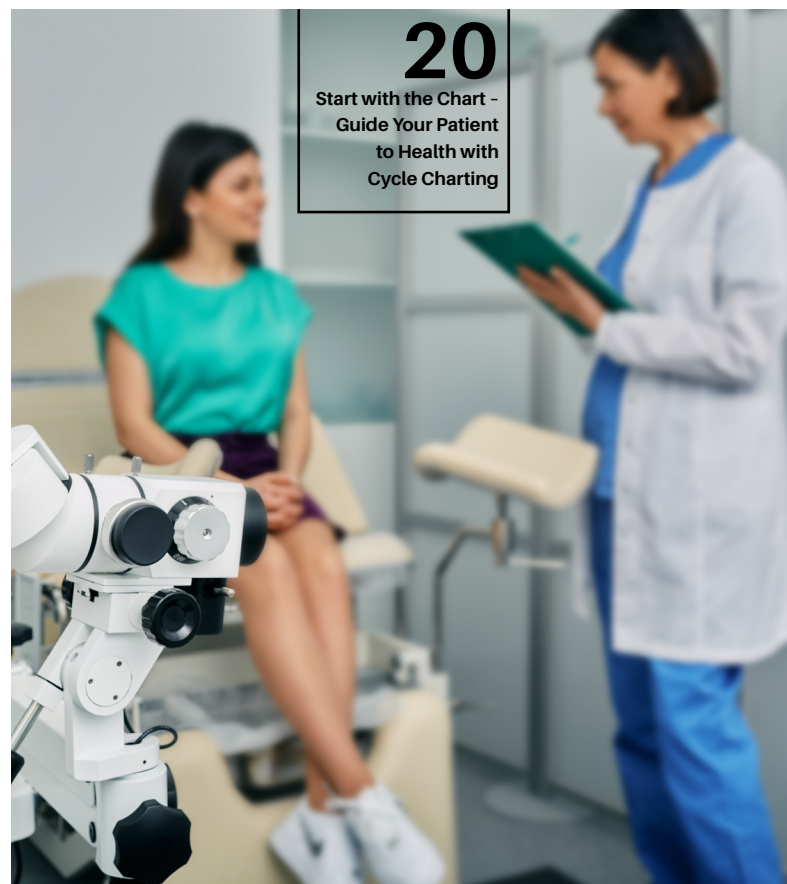
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CONTRIBUTORS

DR. BRIAN KEENAN

ND

Dr. Brian Keenan is an herbalist, Naturopathic Doctor, and acupuncturist. He spends his time synthesizing the worlds of science and energetic medicine for all audiences and experience levels. He currently practices in Maryland and is the education manager at Ayush Herbs Inc. He has also been adjunct faculty at Bastyr University and guest lectures regularly. When not studying the impacts of herbs on the body, mind, and spirit, he can be found in the woods simply enjoying the plant world.



NORA POPE

FCP

Nora Pope, FCP, has been creating, producing and hosting Continuing Medical Education programs since 2003. She is a Creighton Model *FertilityCare* Practitioner and practiced naturopathic medicine from 2002-2019. She completed advanced training in Obstetrics and Gynecology in *NaProTechnology* and has published articles on Cycle Charting in *NDNR* and *Midwifery Today*.



DR. JESSICA LIU

ND

Dr. Jessica Liu, ND, in naturopathic practice since 2006, is clinical director at Lakeside Natural Health Centre in Mississauga, Ontario, and is the creator of the *Vibrant Fertility Program*. She has advanced training in Bio-identical Hormone Therapy and Pharmacology. She is also a regular speaker at the Canadian Fertility Show, known for her special interest in *Fertility PTSD*.



DR. VIRENDER SODHI

MD (Ayurveda India), ND

Dr. Virender Sodhi was the first Ayurvedic and Naturopathic physician in the United States. He earned his M.D. in Ayurveda in 1980 from the Dayanand Ayurvedic Medical College in Jalandhar, India. Dr. Sodhi served as a clinician and medical professor in India until 1986, when the Indian government selected him to share Ayurveda with Western society as part of a cultural exchange program. After arriving in the United States, Dr. Sodhi enrolled at Bastyr University and received his ND degree from Bastyr in 1988. His clinical work has specialized in combining Ayurvedic medicine and oncology, having finished fellowship in Integrative Oncology with Dr. Mark Rosenberg in 2012. He is also the CEO of Ayush Herbs Inc., bringing sustainable and pure Ayurvedic herbs and balanced herbal formulations to the West. He currently practices at the Ayurvedic & Naturopathic Medical Clinic in Bellevue, Washington.



DR. LISA MURRAY-DORAN

B.Sc., ND, R.Ac.

Dr. Lisa Murray-Doran B.Sc., ND, R.Ac., is a Registered Naturopathic Doctor and Registered Acupuncturist in the province of Ontario. She has been in practice for 25 years. Currently she is practicing virtually online and also offers acupuncture and in-person naturopathic consultations at The Natural Health Centre in Barry's Bay, Ontario. Dr. Murray-Doran has served on the executive of the Board of Directors of the Ontario Association of Naturopathic Medicine as acting Secretary; she has been a birth doula and birth advocate for 30 years; she is the founder of the Association of Perinatal Naturopathic Doctors; she is a past professor of Obstetrics at the Canadian College of Naturopathic Medicine and she is the co-author of two books. Dr. Murray-Doran enjoys gardening, backcountry camping, baking sourdough bread, reading books and having adventures with her dogs, Toffee and Winnie.



ADVISORY COMMITTEE

DR. JANIS LI

ND

Dr. Janis Li, ND, maintains a private practice in Richmond Hill, Ontario. Her areas of clinical interest include pain management, stress management, women's health, weight loss, and digestive concerns. She is an eclectic practitioner and incorporates multiple therapies in her treatment plans, with Traditional Chinese Medicine and acupuncture being her most commonly prescribed modalities. Outside of private practice, she volunteers her time with the OAND as a member of *The Pulse* Medical Advisory Group and Continuing Education Advisory Group. She also enjoys connecting with students as a teaching assistant and lecturer at the Canadian College of Naturopathic Medicine in Toronto.



DR. DARIA LOVE

ND

Dr. Daria Love, ND, has been in professional practice for almost 45 years. While practicing largely as a solo general practitioner in downtown Toronto, she has experienced different practice settings and styles. She has been involved extensively with the naturopathic profession including education, Board positions with CCNM, current Chair of PAC, member of the Medical Advisory Group for *The Pulse* and NEST, and has written articles for *Vital Link*, *The Pulse* and some community-based organizations. She is a strong advocate for participation in professional activities that promote personal and professional growth. But life is not all about practice and the profession! She is looking forward to a waning of COVID and being able to return to her jewelry artistic activities with the Eden Mills Arts Festival, and the Fine Arts Studio Tour of Milton.

DR. JULIANA ROSARIO YEUNG

ND

Dr. Juliana Rosario Yeung, ND, is a mother and a naturopath passionate to guide other parents into their naturopathic journey of parenthood. She supports whatever stage one may be in: preconception, pregnancy and postpartum.



Agni:

Harnessing the Fires of Metabolism

DR. BRIAN KEENAN, ND, AND DR. VIRENDER SODHI, MD (AYURVEDA INDIA), ND

In the wide world of vitamin supplements, herbal products, and get thin quick schemes, one factor presents itself routinely as the cornerstone by which all health goals are achieved, and that is digestion and absorption. Without the alimentary canal in working order, it becomes difficult if not impossible to reap the benefits of vitamins, herbal products, and to alter metabolism. When we look back historically, digestive fire is routinely mentioned as something to be kept alive, managed, and from its health either vitality or illness will spring. In Ayurveda, the traditional medical system of India, this concept is referred to as *agni*. *Agni* is not simply the capacity of the body to secrete enzymes and acids to break down and ultimately absorb food, but rather it is a highly nuanced process and the products of this fire are myriad and worthy of exploration. By diving into a deeper understanding of what *agni* is and its many functions, clinicians can perhaps find inspiration and innovation to their approaches to digestive health, supplementation, and even correcting systemic imbalances in their patients.

The concept of *agni* is vast, there are over forty types of *agni* in the body, with 13 main types. There are three aspects of *agni*, the first aspect is the one most familiar with Westerners, and that is the reaction to food and drink in the body. This is known as *jatharagni* and it very literally refers to the transformation of food and drink into an absorbable form.¹ This aspect of digestion is the starting point for the health and production of the other two aspects of our digestion. It should be mentioned, however, that from a strict linguistic standpoint, the word for digestion is *paka*, and *agni* is the agent by which that is possible. *Agni* in this case includes aroma, taste, the motive force of chewing, and more. This is an important distinction because one does not treat *paka*, *paka* is merely a function of the actions of *agni*. Where this becomes relevant to the practitioner is in the form of approach. For instance, consider an individual with gas, bloating, and discomfort whenever eating for whom elimination diets have not proven useful. It could be said that the *agni* is impaired,

which is leading to disharmony of digestion/*paka*. In this case, additional fire is needed in the form of digestive enzymes and supplemental acid to rekindle this aspect of digestion. Another classical way this is accomplished is through the employment of Trikatu, a combination of long pepper, black pepper, and ginger. By addressing the digestive fire of an individual, one has another tool to address the situation where more common approaches have failed. Given that hypochlorhydria occurs in roughly 4% of healthy individuals,² and can cause a plethora of symptoms, these are all addressed through this function of maintaining *agni*.

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The second aspect of *agni* is known as *Bhutagni*, which on its face represents the liver's ability to transmute the chemicals in food to be brought into our cells or excreted from the body. Traditionally in Ayurveda, it is split into five elemental types. This aspect of transformation is tied to a specific element of earth, air, ether, water, and fire. If one is attempting a 1 to 1 correlate between a Western understanding and Ayurveda's medical philosophy, it would be the aspect of the cytochrome p450 system, and how different substrates elicit different metabolites, all highly variable based on which chemical, and which enzyme, are interacting. To take this knowledge a step further, this is a chief aspect where many botanicals are exerting their effects, as they too bring a variety of phytochemicals, each with their own elemental and cytochrome affinities. *Picrorhiza kurroa*, *Cucurma longa*, and *Eclipta alba* have all been described in classic texts to treat this level of *agni*. Today,

research is beginning to validate these traditionally used herbs. For instance. *Picrorhiza* was studied for its ability to correct liver enzymes in those with acute hepatitis, with favourable results.³ Meanwhile, turmeric has long been accepted by the larger scientific community for its utility in curbing inflammation. What is less well known, is a study on its ability to walk back the severity of non-alcoholic fatty liver disease, which it was found doses as low as 70 mg of curcuminoids (found in 500 mg crude herb) were associated with decreased liver fat and improved liver enzyme



profiles.⁴ *Eclipta alba*, a very famous liver herb in the Ayurvedic materia medica, is also finally receiving the human clinical it is long overdue to have. A study of 60 mildly hypertensive male subjects saw improved liver function, lipid profiles, and decreased blood pressures when taking 3 grams per day, in divided doses, over a 60-day period.⁵ So for patients with whom elimination diets, digestive enzymes, and herbal bitters may have not proven useful, beginning to assess the liver and its metabolic functioning can prove the next important step. By utilizing herbs well known for their hepatosupportive effects, corrections to the *agni's* functioning will result in not only improved digestion, but may also provide a sense of better assimilation into daily life at all levels of being.

The third aspect of *agni* is referred to as *Dhatvagni*, which is split into seven types, each corresponding to the different tissues of the human body.⁶ These seven tissue types are *Asthi Dhatu* – bones; *Majja Dhatu* – the nervous system; *Mamsa Dhatu* – muscles; *Medas Dhatu* – fat; *Rakta Dhatu* – blood; *Rasa Dhatu* – plasma; and *Shukra Dhatu* – the reproductive tissues. This tissue specific *agni* is best correlated with individual cellular metabolism. What is unique here is that the concept of digestion, absorption, and metabolism discussed previously as *agni* essentially repeat themselves at the cellular level. Meaning, each cell has its own *agni*, comprised of the aspects already discussed previously. This is the deepest layer of digestion and yet is also the most functional inasmuch that it is at this cellular level that all aspects of life occur, and the life that humans experience is actually a culmination of these efforts. It is then important for the individual to recognize the bidirectional way this feeds back into health: proper diet and

well managed *agni* forces will lead to healthy cellular function, and healthy cellular function is how healthy digestion occurs. The best way to approach this deep layer botanically is through herbs that affect the body and the mind. As *agni* is reflected in the macrocosm of the entirety of the gastrointestinal system and also the microcosm of cellular metabolism, so too is the mind linked to the gut. Often in naturopathic medicine, homeopathics, flower essences, and cell salts are all employed with stubborn cases. These are energetic treatments that attempt to influence the body at a vibrational level. By using herbs that affect the mind as well as the body, we approach addressing this deep layer of *agni* to better treat the macrocosm that is digestive health. Herbs such as Ashwagandha, Boswellia, and Satavari, are all known to work in this way and each has been studied for its own mind-soothing effects coupled with inflammation modulating properties.^{7,8,9}

For example, in the case of a 55-year-old female presenting with a chief complaint of weight gain, ultrasound revealed a fatty liver with marked AST/ALT elevations. The medical observation that liver is stressed is obvious, but what is not as obvious is the question, “What else is she unable to digest?” In this case, not only did she suffer from gas and bloating as well as nausea despite a relatively healthy diet, but no one had asked into all aspects of what the patient was transforming in her life. In her case, she had lost her father, and her mother was diagnosed with rapidly progressive Alzheimer’s disease within months of each other. Despite choosing relatively healthy foods, the patient admitted she had been stress eating as a coping mechanism. In this example, the patient’s *Bhutaagni* disharmony is coming from

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a two-pronged insult. First, physically, she is dampening her *agni* with overconsumption. Regardless of the type of food, Ayurveda states that overconsumption, as well as irregular eating habits, will directly impact *agni*. Secondly, her deepest aspects of self which are governed by *Dhatvagni* have been impaired from a mental/spiritual insult that she is unable to digest. The diagnosis was that the *agni* was suppressed. Both from exhaustion due to overeating and from a rejection of one's life circumstances. The treatment then is to stoke the fires of *agni* very gently. Due to the deep and expansive nature of *agni* as previously discussed, in Ayurveda, it is wise to very gently stoke the fires within a patient as to avoid imbalance in the other direction, causing further inflammation.

The treatment was a simple combination of the powders of ginger, long pepper, and black pepper mixed with a small amount of honey and administered twice a day. This herbal combination is known classically as *trikatu*. Honey meanwhile is used not only to make it palatable, but also it is said to have the ability to "scrape away toxins." Since the patient was overweight and had fatty liver, it can be assumed that assistance with any toxic removal would be warranted. The dosing strategy was also simple, ¼ teaspoon twice a day for 2 days, then increasing by ¼ teaspoon every 2 days until getting to 1 teaspoon twice a day. However, if at any point she experienced gastrointestinal discomfort or reflux, then to back off that dose by ¼ teaspoon, and maintain the highest amount that can be used without causing any discomfort. Additionally, Ashwagandha was employed to promote sleep, help with energy levels, and help the patient detangle from her stressful emotions enough to be able to cope with them. Within three months of this treatment, the patient had lost 15 lbs and began to have improved labs. By none months she had returned to weight prior to the loss of her father and her liver had returned to normal functioning. Additionally, she was able to release herself from being the sole caretaker of her mother which led to better care for both patient and parent.

To summarize, *agni* is not to be described as simple digestion, but rather the pivot around which all factors responsible for the maintenance of health and, when not cared for, the causation of disease revolve. By opening up the meaning of the concept of "digestive fire," and therefore digestion itself, to include considerations around the complex mechanisms we already know to be occurring, we find new lenses and avenues to explore and ultimately enhance the health of patients, practitioners, and by extension, the planet. 🌱

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